

AMENDMENTS TO THE CLAIMS

Please amend claims as set forth below. A complete listing of all claims with their correct identifier is presented below.

1. (Currently Amended) An antenna with built-in filter comprising:

a laminated dielectric block that is formed such that dielectric sheets each having a conductive film formed on one surface are laminated so as to constitute at least one filter;

a radiation element fixedly provided at the laminated dielectric block and electrically connected to one electrode of the filter; and

a feeding terminal electrode ~~electrically connected to the other electrode of the filter and provided at the outer face of the laminated dielectric block, that is provided on a mounting face of the dielectric block, and opposes to a circuit board when the laminated dielectric block is mounted on the circuit board;~~

wherein the feeding terminal electrode and the other electrode of the filter are electrically connected by at least one connecting wiring provided on one of one or more dielectric sheets, and two or more via-contacts each of which is composed of a conductor embedded into a contact hole formed in at least one of the one or more dielectric sheets,

wherein the at least one connecting wiring and the two or more via-contacts are not exposed to an outer face of the laminated dielectric block, and

wherein the two via-contacts are formed at places that are different from each other on a plane view of the dielectric block ~~feeding terminal electrode is provided on a mounting face that is a face opposing to a circuit board when the laminated dielectric block is mounted on the circuit board and a connecting wiring for connecting the other electrode of the filter and the~~

~~feeding terminal electrode is not exposed to the outer face other than the mounting face of the laminated dielectric block.~~

2. (Canceled)

3. (Canceled)

4. (Currently Amended) The antenna with built-in filter of claim ~~2~~ 1, wherein at least one of the ~~via-contact~~ via-contacts is formed into a band shape by embedding the conductor into a slender and groove-like contact hole provided on a the at least one of the one or more dielectric ~~sheet~~ sheets so as to increase the cross section of the via-contact.

5. (Original) The antenna with built-in filter of claim 1, wherein the filter comprises a filter group including at least two of a low-pass filter, a high-pass filter and a band elimination filter.

6. (Currently Amended) The antenna with built-in filter of claim 1, wherein the radiation element is formed so as to be capable of receiving or transmitting two or more frequency bands, and ~~two~~ two or more filters are formed so as to be capable of receiving or transmitting signals of the two or more frequency bands.

7. (Original) The antenna with built-in filter of claim 6, wherein one of the two or more filters comprises a band elimination filter for eliminating a frequency band of a signal that is received or transmitted by the other filter of the two or more filters.

8. (Currently Amended) The antenna with built-in filter of claim 6, wherein the two or more frequency bands received or transmitted by the radiation element comprise at least two of a frequency bands for cellular, a frequency band for GPS and a frequency band for Bluetooth.

9. (Original) The antenna with built-in filter of claim 6, wherein two or more filters are shielded not so as to interfere with each other by forming a shielding wall in a vertical direction in dielectric sheets of the laminated dielectric block, the shielding wall being formed by a band-like via-contact provided in the dielectric sheets.

10. (Currently Amended) A mounting structure of an antenna with built-in filter comprising:

the antenna with built-in filter of claim 1; and

a circuit board which has a laminated structure including at least a shielding layer and a wiring layer, on which the antenna is mounted,

wherein the feeding terminal electrode is electrically connected to an internal wiring provided in the circuit board and an electronic device provided on a surface of the circuit board is electrically connected to the feeding terminal electrode via the internal wiring.

11. (New) An antenna comprising:

a dielectric filter block having first and second filter electrodes therein;

a radiation element provided on the dielectric filter block and electrically connected to the first filter electrode of the dielectric filter block;

a feeding terminal electrode provided on a mounting face of the dielectric filter block that faces a circuit board when the dielectric filter block is mounted on the circuit board;

at least one connecting wiring that is provided in the dielectric filter block and extends in a first direction approximately parallel to the mounting face of the dielectric filter block;

two or more via-contacts, each of which is composed of a conductor embedded into a contact hole formed in the dielectric filter block and extends in a second direction which is different from the first direction, and in which the two or more via-contacts are electrically connected through the at least one connecting wiring;

wherein the feeding terminal electrode and the second electrode of the dielectric filter block are electrically connected by the two or more via-contacts and the at least one connecting wiring; and

wherein the two via-contacts are formed at different places from each other in a plane view of the dielectric filter block.

12. (New) The antenna according to claim 11, wherein the dielectric filter block includes a conductive film.

13. (New) The antenna according to claim 11, wherein the dielectric filter block includes two or more dielectric sheet.